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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,282

03/31/2006

Masahiro Shikai

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22850

7590

01/08/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

COLON SANTANA, EDUARDO

ART UNIT

PAPER NUMBER

2837

NOTIFICATION DATE

DELIVERY MODE

01/08/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/574,282	<b>Applicant(s)</b> SHIKAI ET AL.	
	<b>Examiner</b> Eduardo Colon-Santana	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)                |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application      |
| Paper No(s)/Mail Date <u>3/31/06, 8/2/06, 1/29/2-08, 7/16/08</u> .                     | 6) <input checked="" type="checkbox"/> Other: <u>DETAILED ACTION</u> . |



**DETAILED ACTION**

***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 03/31/2006, 08/02/2006, 01/29/2008 and 07/16/2008 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Atsushi Arakawa et al. JP 08-217366.

Referring to claims 1 and 6, Arakawa et al. discloses an elevator driving system that detects and prevents slippage of an elevator rope as claimed (see figure 12 and respective portions of the specification). Arakawa et al. depicts from figures 7, 8 and 12, a car (8); a rope (5); a pulley (4) around which the rope is wound; a pulley sensor (32) for generating a signal in accordance with the rotation of the rope (5); a car speed sensor (35) for directly detecting a speed of the car (8). Furthermore, Arakawa et al. depicts from figure 12, a processing device (50, 65) for the first speed detecting portion and for the second car speed detecting portion respectfully; and a

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determination portion (adder, not label) for detecting absence/presence of slippage between the rope and the pulley by obtaining a speed of the car based on information from the pulley sensor (32) and a speed of the car based on information from the car speed sensor (35) and comparing the speeds of the car with each other. Moreover, Arakawa depicts a control portion (52) for controlling operation of an elevator based on the information from the processing devices (50, 65) (see abstract and pars. (0020 to 0030)).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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3. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable and obvious over Atsushi Arakawa et al. in view of Hiroshi Araki JP 2004123279.

Referring to claims 2 and 4, Arakawa et al. addresses all the limitations of claim 1 above, but does not explicitly describe that the car speed sensor is a Doppler sensor provided to at least one of upper and lower end portions of a hoistway. However, Araki discloses an elevator control device (see figure 1) which uses a car speed sensor being a Doppler sensor (60a, 60b, 60c) being provided at on the upper and lower end of the hoistway for obtaining the speed of the car by measuring a difference between a frequency of an oscillating wave irradiated toward a reflecting surface in the car and a reflected wave on the reflecting surface. (see also pars. [0008-0009]). Since Arakawa et al. and Araki are in the same field of endeavor regarding elevator systems, the purpose disclosed by Araki would have been recognized in the pertinent art of Arakawa. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a Doppler sensor as taught by Araki within the teaching of Arakawa et al. for the purpose/advantages that Doppler sensors give a better accuracy of the measurement of speed, offering a higher probability of getting the reflected wave detected, which leads to improved overspeed detection, preventing slippage on the elevator system.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable and obvious over Atsushi Arakawa et al. in view of Masaaki Nishigami et al. JP 08198538.

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Referring to claim 5, Arakawa et al. addresses all the limitations of claim 1 above, but does not explicitly describe that the car speed sensor is a distance sensor provided to one end portion of the hoistway and the car. However, Nishigami et al. depicts in figure 1, an elevator car (3) including a height (position) sensor (6) and a reflecting body (7) provided to one end portion of the hoistway and the car, for obtaining the distance by measuring the reciprocating time a energy wave is reflected back to the sensor. Since Arakawa et al. and Nishigami et al. are in the same field of endeavor, the purpose disclosed by Nishigami et al. would have been recognized by the pertinent art of Arakawa et al. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a distance sensor as taught by Nishigami et al. within the teaching of Arakawa et al. for the purpose/advantages of having others simplifying means of obtaining the speed to provide overspeed protection and reduce or prevent slippage with a well-known calculation (i.e.  $V=d/t$ ), where V is velocity, d is distance and t is time.

***Allowable Subject Matter***

5. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

6. The prior art made of record in form 892 and not specifically relied upon is considered pertinent to applicant's disclosure to further show the state of the art.

With regards to Kugiya et al. '657, he discloses an elevator system having an overspeed detection to prevent slippage. Nomura et al. '259 and Ito Kazumasa discloses elevator systems having a pulley sensor to detect overspeed. Kiyoshi discloses an elevator system having brake control system that prevents rope slippage.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Colon-Santana whose telephone number is (571)272-2060. The examiner can normally be reached on Monday thru Friday 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571) 272-2800 X.37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eduardo Colon-Santana/  
Patent Examiner  
Art Unit 2837

/ECS/  
December 31, 2008

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837